Extreme rainfall causes flooding in the 'Bowl' area 2006 of Newmarket on NH Route 108.

The Town initiates a series of investigations of repair or removal of the Macallen 2008

A Capital Reserve Fund is set up for Stormwater Projects in anticipation of MS₄ program costs and future projects

Vision and Future Land Use Chapters of the Master Plan incorporate 2016 climate change and coastal resilience

The Water Department creates a Water System 2017 Asset Management Plan.

The Water and Wastewater Departments perform a Buildout Study 2017 for water and sewer.

Moody Point looks into drinking water quality of its 3 wells. Residents concerned with taste. Moody Point subsequently implements a no rrigation policy, conducts sampling, and begins to investigate an alternative source of drinking water.

> Climate Adaptation Plan for the Moonlight **Brook Watershed** developed. The Plan examines the relationship betweer flooding, future development, lowimpact development (LID) zoning benefits, climate change, and the connection to using LID and green infrastructure to comanage for flooding and water quality.

Modeling showed 3 key factors that Strafford Regional Planning influence salinity in wells: how much Commission (SRPC), in partnership you pump out, how much you put back with University of New Hampshire in, and sea level rise. – Dale Pike, Ad and NH Department of Environmental Hoc Riverfront Advisory Committee Services, engages the Town in a groundwater modeling study to

The Town of Newmarket's Wastewater Department and the **US** Department of Agriculture (USDA) discuss extension of Town water main to Moody Point using funding from the Rural Development Program.

The Town of Newmarket and The Nature Conservancy complete culvert replacement project. This is another infrastructure improvement to reduce flooding. The project also highlights how Newmarket has benefited from support of and collaboration with regional agencies and organizations. Public Works Department provided labor, materials, project management, grant administrative services, and cash for the local match requirement

The Macallen Dam repair starts. This is a major resiliency project that involved over \$3 million and 10 years of planning, studies, and construction. The result of the project increases capacity of the dam to meet the 100-year flood event in accordance with NH DES regulations. This reduces the current and future flood impacts and increases resilience to climate change.

The Lamprey River Advisory Committee and UNH test Lamprey River water quality

The Town receives \$500,000 in Community Development Block Grant and \$1 million in NH DES State Revolving Loan Program funds, and \$250,000 in Rural Development funding from USDA to replace a water line and address drainage and flooding on New Road and Young Lane. Total project costs will be finalized when projects go to bid in fall 2021. Drainage improvements include excavation and construction of a gravel wetland, embankment stabilization, a new drainage outfall, and installation of a new 18-inch culvert. A new retention pond south of New Road and east of Center Street will treat water. A portion of the drainage will be diverted along New Road to a new drainage outlet. The project will relieve some of runoff within the Moonlight Brook area, which contributed to major flooding in the 'Bowl' area during the flooding in 2006 and 2007.

identify existing and potential future

locations that are vulnerable to sea-

level rise impacts to groundwater.

An advisory committee is formed to

guide the project. The results of study

help the community identify long

term, sustainable solutions.

2019

2020

2020

Moody Point contracts with Wright Pierce to conduct a preliminary engineering study to provide a cost estimate for constructing an extension of the Town's water main along Cushing Road.

A combination of Town operating funds from Water and Sewer, the Public Works Department, and Capital Reserve Funds provided funding for the preliminary studies and engineering for New

2019

Voters approve a \$12.2 million Water Improvements Warrant Article to replace South Main Street, Bay Road, and New Road water mains. The project includes extending a water main to Moody Point, building a water treatment facility to treat MacIntosh and Tucker Wells for arsenic, constructing Tucker Well, and upgrading the Bennett and Sewall Wells.

Climate change is incorporated into the Town's new Water Resources Master Plan Chapter with assistance from SRPC. Climate conditions have produced increased flood and storm events, as well as periods of severe drought, placing higher demand on the municipal water supply and local aquifers. Recommending policies, regulations, and actions that place a stronger emphasis on adaptation and resilience was a key goal of the project.

The newly incorporated information in the chapter will allow us to better manage and protect the community's precious water resources that are being increasingly threatened by the impacts of climate change and rapid development.

- Michal Zahorik, Planning Board

The Riverfront Advisory Committee discusses culvert replacement and Schanda Park Resilience. In addition to the erosion problem occurring at this small park, factors including its proximity to downtown and to the pump station (which is vulnerable to flooding and sea level rise) make it a good location for a restoration project. The small park is an important public space. The Town recognizes the opportunity to take a comprehensive approach to the park redevelopment that includes addressing the pump station vulnerability and long term infrastructure planning, as well as enhancing access to other parks like Heron Point.

The Schanda Park shoreline (through the Riverfront Advisory Committee) and the Moody Point shoreline (through the Moody Point Community Association) are selected to have UNF teams of professiona engineers, landscape architects, and ecologists develop suggested living shoreline designs

NEWMARKET'S PATH TO RESILIENCE

A selection of projects that increase resilience of the community, infrastructure, and surrounding water resources.

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